Catalogue of American Amphibians and Reptiles.

Powell, R. 2000. *Cyclura onchiopsis*.

Cyclura onchiopsis Cope
Navassa Island Rhinoceros Iguana

Metopoceros cornutus: Cope 1866:124 (part).
Cyclura nigerrima Cope 1885:1006. *Nomen nudum*. See **Remarks**.
Cyclura onchiopsis Cope 1885:1006. Type locality, "from an unknown locality," restricted by Cope (1885 [1886]) to "Navassa Island." Holotype, National Museum of Natural History (USNM) 9977, an adult female, collected July 1878, by H.E. Klotz (examined by author). See **Remarks**.
Cyclura cornuta: Cope 1885 (1886): (part).
Cyclura cornuta nigerrima: Barbour 1937:132. See **Remarks**.
Cyclura cornuta onchiopsis: Schwartz and Thomas 1975:112. See **Remarks**.
Cyclura cornuta onchioppsis: Blair 1993:57. *Lapsus*.

• **CONTENT.** *Cyclura onchiopsis* is monotypic.

• **DEFINITION.** *Cyclura onchiopsis* is a large Rhinoceros Iguana in the *C. cornuta* complex; maximum known SVL of females is 378 mm, of males 420 mm (Schwartz and Carey 1977). Schwartz and Carey (1977) also provided the following description (N = 3): "modally 2 rows of scales between the prefrontal shields and the frontal scale, 4 and 6 scale rows between the supraorbital semicircles and the interparietal (no mode), 7 supralabials to eye center in all specimens, 6 to 10 (no mode) sublabials to eye center, 33 to 38 ($\bar{x}$ = 36.3) femoral pores, 38 to 41 ($\bar{x}$ = 38.6) fourth toe subdigital scales, middorsal scales in fifth caudal verticil 7 in all specimens, dorsolateral body scales in naris-eye distance 30 to 44, scale rows between rostral and nasals 1 or 2; adults as preserved dark and patternless, juveniles unknown."

• **DIAGNOSIS.** *Cyclura onchiopsis* may be distinguished from all congeners except *C. cornuta* and *C. stejnegeri* by the presence of 1–2 pairs of enlarged prefrontals and an enlarged frontal. *Cyclura onchiopsis* is distinguished from *C. cornuta* and *C. stejnegeri* by 30–44 dorsolateral scales in a distance equal to that between the naris and the eye (versus 13–26 in *C. cornuta* and *C. stejnegeri*). A number of additional modal differences, many with non-overlapping ranges, also serve to distinguish these closely related species (Schwartz and Carey 1977).

• **DESCRIPTIONS.** Descriptions specifically of Navassan animals, some very brief, are in Barbour and Noble (1916), Cope (1885, 1885 [1886]), and Schwartz and Carey (1977). Cochran (1941) compared *C. onchiopsis* with other Rhinoceros Iguanas.

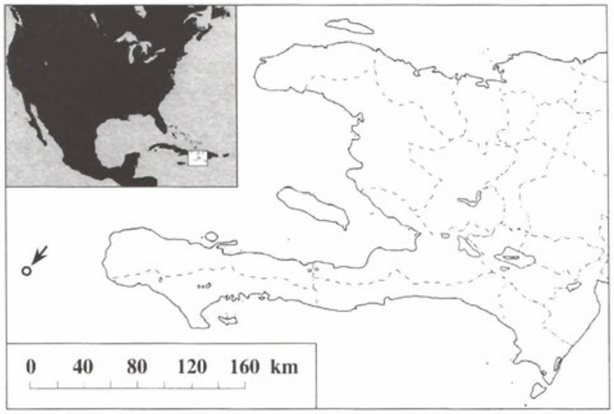
• **ILLUSTRATIONS.** Photographs of dorsal and lateral views of a museum specimen (MCZ 4717) are in Barbour and Noble (1916), who also provided drawings of a tail segment and of a foot. Powell (2000) included a photograph of USNM 12239.

• **DISTRIBUTION.** *Cyclura onchiopsis* was endemic to Navassa Island, where presumably it was found islandwide prior to its extinction (see Remarks).

• **FOSSIL RECORD.** Patton (1967 [1968]) reported *Cyclura* sp. of "probable Pleistocene age" from Navassa.

• **PERTINENT LITERATURE.** Other than Cope's (1885, 1885 [1886]) original descriptions, most pertinent references have addressed either the extinct or taxonomic status of this form, and are listed elsewhere in this account.

The species (under various names listed in the synonymy) is included in notes, checklists, guides, and keys by Aresté (1998), Barbour (1914, 1919, 1930, 1935, 1937), Barbour and Loveridge (1929), Bartlett and Bartlett (1995), Boulenger (1885), Burghardt and Rand (1982), Cope (1868), Etheridge (1982), Garman (1887 [1888]), MacLean et al. (1977), Powell et al. (1996, 1999), Rosenthal (1996), Schmidt (1920, 1921, 1926), Schwartz and Henderson (1985, 1988), Schwartz and Thomas (1975), Sprackland (1992), Thomas (1966), WIISG (1999), and Westermann (1953); some of these included references to relationships within the genus or brief descriptions.



MAP. Distribution of *Cyclura onchiopsis*. The circle represents Navassa Island, the type locality and entire range of the species.



FIGURE 1. Adult male *Cyclura onchiopsis* (holotype, USNM 9977).



FIGURE 2. Juvenile *Cyclura onchiopsis* (paratype, USNM 12239).

Additonal references to this species may be indistinguishably subsumed under the name *Cyclura cornuta*; for example, de Queiroz (1987) examined an x-ray of MCZ 9974 in the context of an osteological study, but did not acknowledge what were then regarded as subspecies (in litt., 3.XI.99). Similarly, Banks et al. (1987) listed "*Cyclura cornuta* (Bonnaterre, 1789)," but whether this was in reference to escaped Hispaniolan animals in Florida, to *C. onchiopsis* on Navassa Island, or *C. stejnegeri* from Isla Mona is uncertain.

• REMARKS. Schwartz and Carey (1977) rightly note that *Cyclura nigerrima* is a *nomen nudum*. Although both names, *onchiopsis* and *nigerrima*, were used by Cope (1885), only the former was diagnosed. Nearly a year later, Cope (1885 [1886]) provided a diagnosis of *nigerrima*. However, as Navassa undoubtedly "supported but a single species of *Cyclura*, *nigerrima* must stand in the synonymy of *onchiopsis*" (Schwartz and Carey 1977).

Schwartz and Carey (1977) stated that USNM 9977, USNM 12239, and MCZ 4717 are syntypes of *C. onchiopsis*, although the USNM catalogue lists only 9977 as the holotype and notes that both 9978 and 12239 could be a "possible paratype of *Cyclura onchiopsis* (although only one large specimen is mentioned in the original description)." USNM 9978 is no longer extant and "is probably the specimen exchanged to the Museum of Comparative Zoology (= MCZ 4717) although Cochran (1961) indicated the exchanged specimen was out of USNM 9977."

Considerable confusion exists in the literature regarding the relationships of *Cyclura* from Hispaniola, Navassa Island, and Mona Island (Glor et al. 2000). Cope (1885) placed Hispaniolan *cornuta* in the monotypic genus *Metopocerus*, but included Navassan *onchiopsis* and *nigerrima* in *Cyclura*. However, Cope (1885 [1886]) referred "both" Navassan species to *C. cornuta*. Barbour and Noble (1916) reestablished the Navassan form as distinct from *C. cornuta*, but Barbour (1937), without comment, listed the Navassan and Mona Island forms as subspecies of *C. cornuta*. Although Carey (1975) recognized the specific status of all three forms, most recent authors (e.g., Schwartz and Thomas 1975, Schwartz and Carey 1977; Schwartz and Henderson 1988, 1991; Powell et al. 1996, 1999; Thomas 1999) have considered *C. cornuta* subspecifically related to *C. onchiopsis* and *C. stejnegeri*. However, Powell (1993) listed *C. cornuta* among Hispaniolan taxa then recognized as subspecies that might warrant full species status, implying that *C. onchiopsis* and *C. stejnegeri* were similarly deserving of such recognition. Powell (1999) re-elevated *C. onchiopsis* and also strongly encouraged recognition of *C. stejnegeri* as a full species. Powell and Henderson (1999) followed those recommendations.

Cyclura onchiopsis is undoubtedly extinct and, like all of its congeners, probably was extremely vulnerable to human exploitation, habitat alteration, and introduced predators. Schwartz and Carey (1977) suggested that the introduction of cats or goats by the lighthouse keepers in the early 20th century may have been responsible, but Powell (1999) indicated that exploitation by mine workers in the last half of the 19th century was a more probable cause.

• ETYMOLOGY. The specific name, *onchiopsis*, is presumably from the Greek *onkos*, meaning "swelling," and *-opsis*, meaning "likeness," probably in reference to Cope's (1885) observation that "the temporal muscles are enormously developed, giving the profile a huge convexity behind."

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